

REMARKS

Acknowledgement is hereby made of the personal interview held on June 27, 2006 between Examiners Kelly Mahafkey and Keith Hendricks and the Applicant's representatives, Attorney Raymond C. Stewart, Professor Aurelio Romeo and Professor Sergio Romeo. The Applicant appreciates the kind reception and helpful discussion that took place during the interview and believes that significant progress has been made toward placing the present application into condition for allowance.

In a Response filed on January 23, 2006, the Applicant elected the invention of original claims 1-11 for prosecution on the merits, with traverse. In order to advance the prosecution of the present application, the Applicant hereby withdraws its traverse and presents herein new claims 24-44 which are directed to the tomato composition *per se* and uses thereof. Original claims 1-23 have been canceled. This action is being taken without prejudice to the right of the Applicant to file one or more divisional applications upon the non-elected subject matter.

A number of objections to the specification and claims as well as a rejection of the claims under 35 U.S.C. § 112, second paragraph, have been made by the Examiner. These issues were discussed at the interview. It is respectfully submitted that the present response addresses and overcomes these issues to the extent that the objections to the drawings, specification and claims, as well as the rejection of the claims under 35 U.S.C. § 112, second paragraph, can be withdrawn.

A Substitute Specification, together with a Supplemental Declaration executed by the inventor, are being submitted herewith. This Substitute Specification reflects the original

typewritten text and omits the handwritten amendments found to be objectionable by the Examiner. No new matter has been added.

In addition, a new Abstract is being submitted and presented on a separate sheet, apart from any other text. Also, a brief description of Figures 1-4 has been inserted on page 4 of the Substitute Specification, in compliance with MPEP § 608.01(f).

The improper multiple dependent claims have been eliminated in new claims 24-44. In addition, the handwritten text has been eliminated.

Accordingly, withdrawal of all of the objections to the specification and claims and rejections under 35 U.S.C. § 112, second paragraph, is requested.

This leaves for consideration the rejection of claims 1-4 under 35 U.S.C. 102(b) as being "anticipated" by Glasser et al (U.S. 4,140,809). This rejection is respectfully traversed. Reconsideration and withdrawal thereof are requested.

In summary, the following points with respect to the distinctions between the soup concentrate in the Glasser '809 patent and the tomato compositions of the present invention are to be noted:

- The primary purpose of the present invention is to enhance water-insoluble solids in order to enhance saucing power. The effect of the invention is shown in Table 7.
- The claimed product is directed to tomatoes *per se*, and not combinations of food items like in the Glasser '809 patent. The soup concentrate described in the '809 patent comprises a mixture of vegetables; see Example II, Formulation (tomato paste, pea paste and carrot paste).

- The water-insoluble “materials” disclosed in the ‘809 patent include “structured particles or pieces, powders or fine granules, and fats or oils”; Col. 3, lines 42-45. As stated at Col. 3, lines 49-54, the expression “structured” is intended to designate “that class of meats and vegetables which have retained their characteristic cell tissue structure ... and to distinguish from mashed or powdered foods lacking in cellular structure.”
- The term “dry residue” is neither mentioned nor defined in the ‘809 patent.
- Therefore, the meaning of “water-insoluble materials” in the ‘809 patent is unclear. This expression must include water-insoluble solids within its scope.
- Footnote (1) to the Table in column 5 of the ‘809 patent recites a blend of 28.3% of tomato paste (30% solids). However, according to the literature, a paste contains 28.6% water-soluble solids and 1.4% insoluble solids.
- Moreover, the Examiner calculates 15% dry residue of which 10-40% are insolubles and 60-90% are solubles. However, claim 1 in the ‘809 patent recites that the amount of water-soluble solids is about 20-40 weight % and that the amount of water-insoluble solids is about 10-40 weight %. It is difficult to reconcile these numbers.

The present applicant has found that tomato products characterized by insoluble/soluble solids ratios that are different from those present in the marketed tomato products and corresponding to a higher content of insoluble solids, are superior in terms of food applications as compared to the known products in organoleptic and nutritional properties.

The tomato products or compositions are characterized in the present application as follows:

1. The amount of total solids (insoluble + soluble) (dry residue) is determined by the removal of water by evaporation followed by weight of the solid residue.

2. The amount of soluble solids is determined in Brix (refractometric), which is known in the food industry to measure sugar content and other soluble solids.
3. The amount of insoluble solids is calculated by subtracting the soluble solids from the total solids.
4. The amount of water is calculated by subtracting the dry residue from the initial weight of the sample.

The tomato compositions of the present invention have the following composition in percentage by weight:

- Dry residue 5.5 -- 20%,
- Water 94.5 -80%,
- 100% being the sum of the two components, wherein the amount of water-insoluble solids and water-soluble solids in the dry residue in percentage by weight is as follows:
- Water-insoluble solids from 18% to 70%,
- Water-soluble solids from 82% to 30%.

A variation of a single value of these measurements defines a product having a different saucing power and organoleptic and nutritional properties.

From a comparison between the tomato products of the present invention and known products, it results that, by considering products with an equal Brix degree (Brix degrees express the concentration of soluble solids and are related to the flavor of tomato products), the presently claimed compositions are clearly superior in terms of food application. In fact, the tomato compositions of the present invention are characterized by a higher content of lycopene, a better saucing power, a clear superior miscibility with fats and with fat foodstuffs and a higher consistency demonstrated also in products with low Brix degrees.

For the record, saucing power is defined, for example, in Attachment A (Carlo Leoni, "I derivati industriali del pomodoro" - Stazione sperimentale per l'industria delle conserve alimentari in Parma, October 1993, page 74), which states in English "... saucing power, namely the capability to adhere as a condiment to pasta without loss of serum and therefore the most important characteristics are the rheometric properties."

It is thus clear that by comparing two tomato products of the same kind in the same concentration of condiment (e.g., ketchup, chili sauce and other sauces), but with different rheometric properties, the tomato product with the higher rheometric properties will have better saucing power. In this regard, the tomato compositions disclosed and claimed in the present application have excellent rheometric properties (viscosity, field stress, rheological index), which are superior to those of commercial preparations, as shown in Tables 1-7 and the accompanying Figures 1-4 in the present application (obtained with a Dynamic Stress Rheometer S-R 200 (Rheometric Scientific)). Moreover, the excellence of the presently claimed tomato compositions has been demonstrated by a test that measures their sticking capability to pasta, a result obtained without losing any serum is shown in Example 10.

Another desirable feature of the presently claimed tomato compositions comprises their excellent miscibility to fats and with fat foodstuff without any serum separation; note Examples 3-8 in the present application.

A further desirable feature is the high consistency obtained in tomato products having low Brix degrees. The only processed tomato product now on the market that has a good consistency is tomato paste. However, the flavor of tomato paste is perceived as being too strong (Brix degrees more than 24°, heat damage) to be consumed without dilution. However, in distinction, the tomato compositions of the present invention, having a higher content of insoluble solids, have a good consistency (creamy-doughy) also in low Brix degree products. The flavor is good and the product may be consumed without dilution or added in high amounts to other foodstuffs, both creamy-doughy or solid.

Again, with respect to the Glasser '809 patent, as mentioned above, the water-insoluble materials included in the soup concentrates of Glasser include structured particles or pieces, powders or fine granules (also defined as "mashed or powdered foods") (column 3, lines 53-55) and fats or oils.

With regard to structured particles or pieces, when meats or vegetables, that are insoluble in water, maintain their characteristic cell tissue structure, one skilled in the art knows that they are composed not only by insoluble solids, but also by soluble solids contained within the

cellular system. Therefore, in Example II in column 5 of the '809 patent, cooked vegetables are structured pieces and contain also soluble solids, (col. 5, lines 16-57).

Also, in Example II (column 5, lines 16-57) of the Glasser patent, there is described the formulation and preparation of a soup concentrate containing tomato paste. In the Table which describes this formulation (column 5, lines 20-36), there is used a "cooked vegetable paste" which composition is indicated in note (1) (line 36) as "a blend of 28.3% tomato paste (30% solids), 34.7% pea paste (18.5% solids) and 37.0% carrot paste (8.8% solids) cooked and pureed." Cooked vegetable paste, being constituted by mashed food, is defined in the Glasser patent as "insoluble material" (column 3, lines 41-45 and 49-54). However, as shown in Attachment B submitted herewith, tomato paste does not have 30% insoluble solids content. Instead, the indication of 30% must refer to the content of total solids, that is, 28.6% soluble solids and 1.4% insoluble solids; see page 124 of Denny, "Tomato Products" (1997) (Attachment B).

Therefore, it is submitted that the products described in the Glasser '809 patent cannot be compared to those disclosed in the present application. Simply stated, the differences extend to the concept of dry residue, water insolubles, water solubles and total solids. A consistent basis of comparison is not possible because of the nature of the water insoluble "materials" defined in the Glasser '809 patent. Accordingly, it is respectfully submitted that the '809 patent does not disclose, teach or even suggest the invention claimed in the present application.

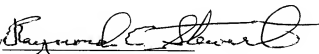
For these reasons, withdrawal of the rejection and allowance of all of the claims are respectfully solicited.

If the Examiner has any questions concerning this application, the Examiner is requested to contact Raymond C. Stewart, Reg. No. 21,066 at the telephone number of the undersigned (703) 205-8000 or via e-mail at mailroom@bskb.com.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

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Respectfully submitted,

By 

Raymond S. Stewart
Registration No.: 21,066
BIRCH, STEWART, KOLASCH & BIRCH, LLP
8110 Gatehouse Road
Suite 100 East
P.O. Box 747
Falls Church, Virginia 22040-0747
(703) 205-8000
Attorney for Applicant

ATTACHMENTS:

Abstract (clean version)

Attachment A - Leoni et al (3 pages)

Attachment B – Denny (8 pages)